HOT SPOT

Hang on Tight—Stories, Parables, Occurrences, Training

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MORTALITY ALERT!

COULD THIS HAPPEN TO YOU?

As direct care staff, do you often wonder why it is necessary to keep records of an individual's bowel habits? Is it really important to know all the side effects and drug interactions for an individual's medications? After reading what happened to one individual the significance of these tasks may be appreciated.

One evening, an individual complained of a stomachache and her legs hurting. She was given Ibuprofen and went to bed. She got up several times to use the bathroom. Suddenly she called to staff for help. She was assisted back to her room where she collapsed. She began bleeding from the rectum, 911 was called as she went in and out of consciousness. She was transported to the local hospital. After several tests were performed, it was discovered that there were "dead" or necrotic sections in her colon. Surgery was quickly performed and sections of the colon were removed. The physician described what happened as being like a heart attack, only it was a bowel attack. The physician further stated that there would be no symptoms that the staff could have done anything about. She passed away just about three weeks after this episode.

Of interest is the fact that this individual was on Clozaril. The antipsychotic clozapine (Clozaril) can cause many adverse effects, most notably agranulocytosis (a disease marked by lesions of the mucous membranes and lowered white blood cell count) and seizures. Clozapine (Clozaril) is a neuroleptic agent that has a listed possible side effect of severe constipation. Clozapine can seriously affect the gastrointestinal system: deaths from bowel obstruction, severe fecal impaction, and necrotizing colitis have been reported. One hospital consultant noted in his evaluation that Clozaril has been associated with liver failure and necrotizing colitis in rare instances. Clozaril may have been a contributor to this death. When there is a lowering of the white blood cell count, an individual is more susceptible to infections. Clozaril is involved specifically with the presence of colitis (inflammation of the mucous membrane of the colon) in conjunction with lowered white blood cell count. In an individual with chronic constipation, there is a potential for hardened feces to irritate the lining of the colon, thereby making infection likely. In an individual with colitis, it can rapidly become serious and result in death. If indeed there is a release of toxins into the bloodstream through the injured colon this may quickly create an emergency situation. The physician caring for an individual on clozapine treatment must be ever observant for the potentially life-threatening consequence of constipation.

This is a situation that could happen to any individual. It emphasizes the importance of close personal observation of an individual. It points out the necessity to monitor bowel habits and follow up on medication contraindications. Chronic constipation is a side effect of many medications. Monitoring of bowel habits is very important for any individual on medications that may contribute to constipation. Monitoring would have to be patterned to an individual, to the specific bowel habits and medications used.

Methods for Infection Control

The purpose of any infection control program is to prevent the spread of infection. Persons working with individuals with developmental disabilities need to implement basic strategies to reduce or eliminate the incidence of spreading all infections. The season for colds, viruses, and influenza is about to begin. Some individuals may develop a related infection and require antibiotics. It is very important to discard the toothbrush two to three days after beginning the antibiotic. This will help prevent reinfection. It is cheaper to purchase a new toothbrush, than have an individual take additional medication. As an alternative, the toothbrush may be placed in a dishwasher for a regular cycle to kill the germs. The water in a dishwasher reaches a temperature high enough to kill germs. Use of disposable tissues is also a good idea rather than use of a handkerchief or article of clothing. Encourage good handwashing after use of tissues. Provide an easy to get to leak proof container for soiled tissues.

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Have You Had Your Training?

Monthly Breast Examinations

Training offered by Regional Nurse Educator
Information and training on breast examination palpation technique is available from the Regional Nurse Educator.

Learner Objectives

- Participants will gain knowledge regarding breast examination.
- Participants will demonstrate appropriate breast examination palpation technique utilizing breast examination training model.

Course Outline

1. Breast anatomy.
2. Calendar worksheet.
3. How to perform breast self-examination (BSE).
4. Performing breast examination.
5. *Warning Signs of Breast Cancer.*
6. When to report results.
7. When to schedule breast examinations.

Winter Walking Tips

1. Start your walk INTO the wind. You'll be better able to judge just how cold it is and whether you have dressed appropriately.
2. Layer appropriate base, insulating and outerwear, wear a hat, scarf, gloves or mittens, and waterproof footwear.
   - Base layer: polypropylene (Capilene, Thermion, Thermax and Thermostat) or silk undershirt and longjohns.
   - Insulating layer: shirt and pants of wool, fleece, pile, or down.
   - Outer layer: Windproof and water-resistant jacket worn loosely.
   - Avoid cotton, as it does not wick sweat and will cool you rapidly if it gets wet.
   - Hat to insulate head and retain heat.
3. Drink plenty of fluids. You may not be sweating, but breathing in cold air also depletes liquids.
4. Protect your eyes and skin - in winter the earth is closer to the sun than in summer and you don't have heat to remind you that the sun's radiation as well as the wind can damage your skin and eyes. Wear sunscreen and sunglasses that screen out the UV rays. Sunlight reflecting off snow can do a lot of damage to your eyes if not screened.
5. Have a change of clothing ready at the end of your walk to prevent rapid cooling from wet clothing.

Where You Walk

- Start your walk into the wind so you will finish with it at your back.
- Select routes sheltered from the wind where possible.
- Select routes that are cleared of snow or ice or do not have standing puddles or mud slicks.
- Use caution when walking on roads, cars may have more difficulty in seeing you in rain or snow and maneuvering around you.
- Check the local tracks to see if they may be a good outdoor or indoor alternative to the sidewalks or streets in poor weather.
- Plan for refuges along the way - is there a store, park restroom, or other place you can duck into to warm up during your walk if needed?
- Consider mall walking as a cold-weather alternative.
- Consider treadmill walking as an alternative.

Got Osteoporosis?
Could This Happen to You?

Is it possible to die from having osteoporosis? It was a contributor in a recent death. This particular individual developed a chronic osteomyelitis (infectious inflammation of the bone and bone marrow) of a thoracic vertebra (area of the spine) which fractured and drained infectious material into the abdominal space. This then caused an infection that spread into the bloodstream causing death. Osteoporosis may have contributed to an inability to definitely diagnose osteomyelitis and the condition may not have been obvious.

Osteoporosis, or porous bone, is a disease characterized by low bone mass and structural deterioration of bone tissue. This leads to bones that become fragile and more likely to break. Typically, these occur as fractures of the hip, spine, and wrist. One in two women and one in eight men over age 50 will have an osteoporosis-related fracture in their lifetime. Significant risk has been reported in individuals of all ethnic backgrounds. Osteoporosis can strike at an age.

During youth, bones grow in length and density. During the teen years, maximum height is reached, but bones continue to grow denser until about age thirty when peak bone density is attained. After that point, bones slowly start to lose density and strength. **Osteoporosis is often called the "silent disease" because bone loss occurs without symptoms.** The process of bone loss begins gradually in the mid to late thirties and is usually a painless process until a fracture occurs. Individuals may not know they have osteoporosis until the bones become so weak that a sudden strain, bump, or fall causes a fracture or a vertebra (bone within the spinal column) to collapse. Collapsed vertebrae may initially be felt or seen in the form of severe back pain, loss of height, or spinal deformities such as kyphosis or stooped posture. Some bones are likely to break or fracture with very little effort. Some bones become so weak that simple daily movement such as coughing or lifting may cause them to collapse. Some individuals, as they grow older, may experience a loss of height, begin

developing a “hunched back”, or clothing no longer fits properly.

Everyone is at risk of developing osteoporosis. Several factors may accelerate the process of osteoporosis including:

- **Age** - the older an individual is, the greater the risks as bones become weaker and less dense as aging occurs.
- **Gender** - women have less bone tissue and lose bone more rapidly then men because of the changes involved in menopause.
- **Family history and personal history** of fractures as an adult- susceptibility to fracture may be, in part, hereditary. Young women whose mothers have a history of vertebral fractures also seem to have a reduced bone mass. A personal history of a fracture as an adult also increases the fracture risk.
- **Race** - Caucasian and Asian women are more likely to develop osteoporosis. African American and Hispanic women are at significant risk also. Caucasian men are at greatest risk, however, men from all ethnic groups develop osteoporosis.
- **Bone structure and body weight** - small-boned and thin women (under 127 pounds) are at greater risk.
- **Menopause/menstrual history** - normal or early menopause increases the risk. Women who stop menstruating before menopause because of anorexia or bulimia, or because of excessive physical exercise, may also lose bone tissue and develop osteoporosis. A hysterectomy or removal of the ovaries increases the risk.
- **Undiagnosed low levels of the sex hormone testosterone in men.**
- **Lifestyle** - cigarette smoking speeds up the rate at which bone is lost, consuming too much alcohol, inadequate amounts of calcium, excessive caffeine use, or getting little or no weight-bearing exercise, increases the chances of developing osteoporosis.
- **Medications/chronic diseases** - medications to treat chronic medical conditions such as rheumatoid arthritis, certain endocrine disorders (under-active thyroid), seizure disorders and gastrointestinal diseases may have side effects that can damage bone and lead to osteoporosis. One class of drugs that has particularly damaging effects on the skeleton is glucocorticoids (such as prednisone, and other steroids used for long-term treatment of asthma or rheumatoid arthritis). The following drugs also can cause bone loss:
  - Excessive thyroid hormones
  - Anticonvulsants
  - Antacids containing aluminum
  - GnRH used for treatment of endometriosis
  - Methotrexate for cancer treatment
  - Cyclosporine A, an immunosuppressive drug
  - Heparin
  - Cholestyramine used to control blood cholesterol levels

It is important to discuss the use of these medications with the physician and not stop or alter medication dose. For many individuals, these drugs are life saving or life-enhancing drugs, and their use may be the only way to achieve a better quality of life.

Specialized tests called bone density tests can measure bone density in various sites of the body. Based on a comprehensive medical assessment, including an accurate height and weight, the physician may recommend that bone mass be measured. A bone mass measurement is the only way to tell if an individual has osteoporosis. There are several ways to measure bone mineral density. Testing is painless, noninvasive and safe. Most tests measure bone density in the spine, hip, or wrist. Recently, bone density tests have been approved by the US Food and Drug Administration (FDA) that measure bone density in the middle finger, kneecap, and the heel or shinbone. A bone density test can detect osteoporosis before a fracture occurs, predict the chances of fracturing in the future, and determine the rate of bone loss and/or monitor the effects of treatment. The information from a bone density test enables the physician to identify if the individual is within ranges of normal and to determine if there is risk for fracture.

Types of bone mass density (BMD) tests may include:

- DXA (Dual Energy X-ray Absorptiometry) measures the spine, hip or total body.
- DXA (Peripheral Dual Energy X-ray Absorptiometry) measures the wrist, heel or finger.
- SXA (Single Energy X-ray Absorptiometry) measures the wrist or heel.
- QUS (Quantitative Ultrasound) uses sound waves to measure density at the heel, shinbone and kneecap.
- QCT (Quantitative Competed Tomography) most commonly used to measure the spine, but can be used at other sites.
- QCT (Peripheral Quantitative Computed Tomography) measures the wrist.
- RA (Radiographic Absorptiometry) uses a x-ray of the hand and a small metal wedge to calculate bone density.
- DPA (Dual Photon Absorptiometry) measures the spine, hip or total body (used infrequently).
- SPA (Single Photon Absorptiometry) measures the wrist (used infrequently).

Several steps can be taken to prevent osteoporosis. While there are treatments for osteoporosis, there is currently no cure. A high calcium intake will not protect an individual against bone loss caused by estrogen deficiency, physical inactivity, smoking, alcohol abuse or various medical disorders or treatments. There are four steps to prevent osteoporosis. No one step alone is enough to prevent osteoporosis but all four steps may help. These include:

- A balanced diet rich in calcium and vitamin D
- Weight-bearing and resistance exercise
- A healthy lifestyle with no smoking or excessive alcohol use
- Bone density testing and medications when appropriate

Calcium plays an important role in maintaining bone. Calcium alone cannot prevent or cure osteoporosis. Getting enough calcium is essential in maintaining bone strength and can play a role in preventing osteoporosis-related fractures. Recommended calcium intake for adults age 19-50 is 1000mg/day, for adults age 51 and older it is 1200mg/day. Vitamin D plays a major role in

calcium absorption and bone health. *Speak to a physician or dietitian about how to get the proper amount of calcium and vitamin D.*

Currently, the FDA approves estrogens, alendronate (Fosamax), risedronate (Actonel) and raloxifene (Evista) for the prevention and treatment of postmenopausal osteoporosis.
Calcitonin (Miacalcin) is approved for treatment only. To help men with osteoporosis, physicians may prescribe testosterone replacement therapy for a man with a low testosterone level. Calcitonin, while not approved by the FDA for use in men, evidence suggests that it may work in men. Alendronate is approved as a treatment for osteoporosis in men. The FDA committee has recommended sodium fluoride for approval. Parathyroid hormone, calcitriol, and others are investigational drugs.

If an individual has a noticeable loss of height, change in posture, or sudden back pain, it is important to inform the physician. There are a number of medical specialists treating individuals with osteoporosis, including internists, gynecologists, family physicians, endocrinologists, rheumatologists, physiatrists and orthopedists. The physician will assist with management of an individual's diagnosis of osteoporosis. The physician will recommend the daily amount of calcium needed, the appropriate amount and type of exercise that can safely be done, and the type of medication to be used. It is important to inform the treating physician of all medications being taken (both prescribed, and over the counter), and give a complete and accurate account of family history and individual health habits.

Ideas for future issues are greatly appreciated.

Please feel free to submit any news articles or request any information on issues that will promote a better understanding of the MR/DD population. Contact Ruth Givens at 615-532-6547 or by E-mail at rgivens@mail.state.tn.us

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